

AMENDMENTS TO THE CLAIMS

Claim 1. (currently amended) A spreader roll for web processing machines of the type used in the paper, textile and plastics industry, for use on a web of material to be splayed, the spreader roll comprising:

a bowed shaft, said shaft being bowed along a longitudinal axis;

a bowed cylindrical outer surface comprising a plurality of cylindrical elements axially aligned along said shaft, each of said elements having an outer surface and at least one end portion having a nonlinear profile; and

whereby the splayed web is intermittently supported by at least one of said plurality of cylindrical elements at said nonlinear profile.

Claim 2. (original) The spreader roll of claim 1 wherein said non-linear profile of adjacent ones of said cylinder elements are arranged in mating relationship.

Claim 3. (original) The spreader roll of claim 2 wherein said non-linear profile defines a generally sine wave configuration.

Claim 4. (original) The spreader roll of claim 3 wherein said sine wave configuration includes flattened areas.

Claim 5. (original) The spreader roll of claim 3 wherein said sine wave configuration includes tessellated, partially mosaic flattened areas.

Claims 6 - 9, inclusive. (cancelled)

Claim 10. (currently amended) A spreader roll for web processing machines of the typed used in the paper, textile and plastics industry for use on a web of material to be splayed, the spreader roll comprising

a bowed shaft, said shaft being bowed along a longitudinal axis;

a plurality of roll segments, said roll segments being bowed and rotatably supported on said shaft;

each said segment having at least one non-linear end edge profile; and

whereby the splayed web is intermittently supported by at least one of said plurality of cylindrical elements at said nonlinear profile.

Claim 11. (original) The spreader roll of claim 10 wherein said non-linear end edge profiles are arranged to intermesh with adjacent roll segments.

Claim 12. (original) The spreader roll of claim 10 wherein said non-linear end edge profile is substantially sinusoidal.

Claim 13. (original) The spreader roll of claim 12 wherein the substantially sinusoidal edge profile includes at least one flattened area.

Claim 14. (original) The spreader roll of claim 12 wherein the substantially sinusoidal edge profile includes tessellated, partially mosaic flattened areas.

Claim 15. (currently amended) A spreader roll for web processing machines of the type used in the paper, textile and plastics industry for use on a web of material to be splayed, the spreader roll comprising

a ~~bowed~~ shaft, said shaft being bowed along a longitudinal axis;

a bowed cylindrical outer surface comprising a plurality of cylindrical roll segments axially aligned and rotatably supported on said shaft;

each said segment having a sinusoidal end edge profile; and

whereby the splayed web is intermittently supported by at least one of said plurality of cylindrical elements at said nonlinear profile.

Claim 16. (original) The spreader roll of claim 15 wherein said non-linear end edge profiles are arranged to interlock with adjacent roll segments.

Claim 17. (original) The spreader roll of claim 15 wherein each said sinusoidal end edge profile includes at least one flattened area.

Claim 18. (original) The spreader roll of claim 15 wherein each said sinusoidal end edge profile includes tessellated, partially mosaic flattened areas.